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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,662

07/31/2008

Dirk Harms

17822.1

4591

22913

7590

07/07/2010

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EXAMINER

SELLS, JAMES D

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

07/07/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,662	Applicant(s) HARMS, DIRK	
	Examiner James Sells	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 and 35-54 is/are allowed.
- 6) ☒ Claim(s) 19-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 19-29 and 33-34 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wienand (GB 708,342).

Wienand discloses a method and apparatus for continuous production of materials such as wood or veneer interposed with resin cement. As shown in the figures, the system comprises endless belts 19 and 20 which travel around rollers 16 and 17. As materials travel through the belts, heating plates 3 and 11 heat the material and cooling plates 4 and 12 cool the material. These plates oscillate or vibrate via piston 9 and drive 10 to generate frictional heat and apply pulsating pressure to the material. Belts 19 and 20 may be profiled, stamped, matted or polished or be provided with an insert to effect the desired stamping, profiling, polishing or matting of the materials. This system inherently prevents oxygen from entering the materials during the heating operation.

See page 1, lines 20-21, page 2, lines 1-39, page 4, lines 15-109 and page 5, lines 74-99.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wienand as described above in paragraph 2 in view of An (US Patent 6,047,751).

An discloses a method and apparatus for treating wood. As shown in Fig. 1, the apparatus 1 comprises die 3 connected to ultrasonic wave generator 15 and concentrator 16, which applies ultrasonic energy to a piece of wood in order to increase the hardness of the fibers. See Fig. 1 and col. 2, line 9 through col. 3, line 30

It would have been obvious to one having ordinary skill in the art to apply ultrasonic energy to the wood, as taught by An, in the method and apparatus of Wienand in order to provide the predictable result of increasing the hardness of the wood materials.

Thermoplastic adhesives manufactured in an anaerobic atmosphere are well known and conventional in the art and would have been obvious to employ in the method and apparatus of Wienand based on desired properties such as strength, cost and environmental considerations. In addition, measuring the density, vaporizing of the wood and providing an anaerobic gas enclosure are well known and conventional in the art and would have been obvious to employ in the method and apparatus of Wienand in

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order to provide the predictable result of providing sufficient monitoring of the materials and imparting desired physical properties to the materials.

Response to Arguments

5. Applicant's arguments regarding claims 1-2 are persuasive and the rejection of claims 1-18 and 35-54 is withdrawn.

Regarding claim 19, applicant argues Wienand shows only two stations, one for heating and one for cooling. In contrast, applicant argues claim 19 recites three stations. The examiner does not agree. Applicant's claim language, as currently recited in claim 19, does not require three separate and distinct stations (i.e. a first station for applying heat at a first location, a second station for compacting at a second location separate and distinct from the first location, and a third station for cooling at a third location separate and distinct from the first and second locations). Wienand discloses heating plates 3 and 11 which function as a first station to apply heat to the materials and a second station to compact the materials. Wienand further discloses cooling plates 4 and 12 which function as a second station to compact the materials and a third station to cool the materials. Thus the examiner believes the disclosure of Wienand shows all the limitations currently recited in applicant's claim 19.

Allowable Subject Matter

6. Claims 1-18 and 35-54 are allowed.

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7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, in a method for compacting a surface of a wooden workpiece, the prior art does not teach or make obvious the concept of heating a surface of the wooden workpiece in at least partial areas--while preventing the entry of oxygen--by supplying energy to the surface, which energy supply produces a frictional relative motion on the wooden workpiece and hence a heating and a destruction of the cell structure thereof; placing the wooden workpiece under pressure until a thermoplastic adhesive substance coming from the wooden workpiece is formed; and compacting the surface and a volume area beneath the surface under application of pressure while being cooled in the manner claimed by the applicant.

Regarding claim 2, in a method for connecting two wooden workpieces contacting each other, the prior art does not teach or make obvious the concept of heating both the contact surface of a first wooden workpiece and the contact surface of a second wooden workpiece in at least partial areas of the surfaces contacting each other--while preventing the entry of oxygen--by supplying energy to the contact surfaces, which energy supply produces a frictional relative motion between the wooden workpieces and hence a heating and a destruction of the cell structure of at least one wooden workpiece; placing the first and second wooden workpieces under pressure until a thermoplastic adhesive substance is formed, whereby the two wooden workpieces are pressed against each other with their contact surfaces under application

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of pressure; and compacting a surface area of at least one of the wooden workpieces under pressure in the manner claimed by the applicant.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone/Fax

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sells whose telephone number is (571) 272-1237. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phil Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Sells/
Primary Examiner, Art Unit 1791